

IMPORTANCE OF VAYASTHAPANA-MAHAKASHAYA DRUGS WSR TO ITS POTENTIAL USES IN GERIATRIC CARE

Dr. Ritu Rajoriya¹, Dr. Sumit Nathani².

¹P.G. Scholar, Dept. of P.G. Studies in DravyaGuna, National Institute of Ayurveda, Jaipur, Rajasthan

²Assistant professor, in P.G. Dept. of DravyaGuna. National Institute of Ayurveda, Jaipur, Rajasthan,

ABSTRACT

Ageing is an inevitable change for not only human kind but all living creatures. In Ayurveda jara chikitsa (geriatrics) is mentioned as one of 8 branches (Sushruta samhita) and jara is said to be swabhavika vyadhi. Ayurveda has given unique importance to geriatric care. In Ayurveda the concept of anti-ageing is embodied in *Rasayana*. *Rasayana* therapy helps to prevent ageing and its ill effects. It provides longevity, immunity against diseases and improves mental and intellectual competence. Various single and combination of drugs like Vayasthapana mahakashaya having *Rasayana* properties have been mentioned in ancient treatises which helps in overall nourishment of different dhatu. *Rasayana* drugs possess strong anti-oxidant activities. This activity is responsible for combating the effect of ageing, stress, diabetes and auto immune diseases. Acharya Charaka has given unique importance to Vayasthapana Mahakashaya for maintaining vitality and managing ageing and its allied ill effects.

The purpose of this paper is to put forward and reestablish the role of Vayasthapana mahakashaya drug's in alleviating age related disorders and its uses in Geriatric health and care potential.

Key words: Ageing, Ayurveda, *Rasayana*, *Vayasthapana Mahakashaya*.

INTRODUCTION

Ageing is defined as gradual biological impairment of normal functions, probably as a result of changes made into the cells and structural components. These changes would consequently have a direct impact on functional ability of organs and biological symptoms. Ayurveda counters the aging and its allied ill-effects with three pronged approach. First it recommends the countering of aging and its adverse effects by use of Vayasthapak drugs (age stabilizers) and the

second approach is to rejuvenate the aged body by Jeevneeya drugs (vitalisers) and third approach is Jarachikitsa i.e. *Rasayana Chikitsa* (Rejuvenating process and formulations) which is a very well developed branch among eight branches of the management of Geriatrics disorders. *Rasayana* also elaborated in Rig-Veda and Atharva-Veda like Soma etc. *Rasayana* basically boosts the Oja (vital force of life - the immune system) and helps the person to maintain good health¹.

Life extension science, also known as anti-

How to cite this URL: Dr Ritu Rajoriya, Importance of Vayasthapana-Mahakashaya Drugs Wsr to Its Potential Uses in Geriatric Care. International Ayurvedic medical Journal {online} 2016 {cited 2016 April} Available from:

http://www.iamj.in/posts/images/upload/692_700.pdf

aging medicine, experimental gerontology, and bio-medical gerontology is the study of slowing down or reversing the processes of aging to extend both the maximum and average lifespan. Experimental studies done on various Rasayana drugs prove that they have immune stimulant, antioxidant, and anti-stress etc properties.ⁱⁱ

Global health scenario in geriatrics

The twenty-first century is witnessing a gradual decline in fertility; and with increase in life expectancy, the society will need to grapple with issues of longevity. The leading causes of mortality among aged people comprise respiratory problems, heart diseases, cancer and stroke. Significant causes of morbidity among this group is chronic inflammatory and degenerative conditions such as Arthritis, Diabetes Osteoporosis, Alzheimer's disease, Depression, Psychiatric disorders, Parkinson's disease and age related urinary problems.ⁱⁱⁱ

MATERIAL AND METHOD:^{iv}

Theories of ageing –

- a) Free radical theory
- b) Telomerase Theory
- c) Hayflick Limit Theory
- d) Cross-linking Theory

Age Associated Physiological changes:^v

Sensory System - Change in vision and hearing etc.

Nervous System - Decrease in neurons and slow neurotransmitter, changes in sleep cycles.

Musculoskeletal System -Sarcopenia, gradual loss of bone mass, and joints becomes less lubricated.

Gastrointestinal Systems - Decreased tone of intestine and stomach result in slow peri-

staltic movement and diminished enzymes, gastric juices, nutrients result in malabsorption .

Cardiovascular System - the heart less able to pump efficiently, Left ventricular and atrial hypertrophy, Sclerosis of atrial and mitral valves.

Respiratory System- Decreased volume and expansion of lungs may lead to decreased function.

Renal and Genitourinary Systems- Decreases in kidney mass, blood flow, GFR, Decreased drug clearance, Reduced bladder elasticity, muscle tone, capacity

Immune System -Immune response dysfunction with increased susceptibility to infection, reduced efficacy of vaccination, chronic inflammatory state.

According to Ayurveda:

Ageing is known as “Jara” and defined as that which has become old by the act of wearing out “jiryatiitijara”. It is synonyms as “vardhakya” meaning increasing age. Ayurveda divides human life into childhood (up to the age 16years), middle age[from 16 to 60 years (Charak) or 70 years (Sushruta)and exhibits progressively the traits of growth (vivardhamana, 16-20 years of age), youth (youvana, 20-30 years), maturity (sampooranta, 30-40 years), deterioration (hani, 40 years on wards) which gradually sets in up to 60 years[, old age, where in after 60-70 years the body elements, sense organs, strength and so forth begin to decay.^{vi}

Aacharya Sushruta has classified the diseases and mentions **SvabhavaBalaPravritta diseases**, which include Kshudha (hunger), Pipasa (thirst), Nindra (sleep), Jara (Ageing) and Mrityu (death).^{vii}

Sushruta divided **SvabhavaBalaPravritta Vyadhi** into Kalaja Jara (Timely Ageing) and Akalaja Jara-(Premature Ageing).

Acharya Sarangadhara beautifully quoted that changes of ageing are always degenerative in nature^{viii}

रविक्रमो ।

‘तोजीवितदशतोहासेत ॥’ (शा.सं. प्रथमखण्ड 6/20)

The childhood, growth, luster/beauty, intellect, luster of skin, Vision, sexual ability, physical ability, thinking ability and locomotion starts to loss from the body with each passing decade. Likewise, many herbs have been described to be used as per the age as follows-

Age (0-10)Balya (childhood), Vacha (Acorus calamus) Kasmari (Gmelina arborea)

Age (11-20) Vruddhi (growth), Bala (Sida cordifolia) Aswagandha (Withania- somnifera)

Management for Geriatric care:

1. Keep the lifestyle as close as possible to the ideal prescribed by Ayurveda.
2. Utilization of **Rasayana** regularly. In Ayurveda the concept of anti-ageing is embodied in Rasayana. Rasayana therapy helps to prevent ageing and its ill effects. It provides longevity, immunity against diseases and improves mental and intellectual competence. Various single and combination of drugs like **Vayasthapana Mahakashaya** and jeevneeya dravya (vitalisers) having Rasayana properties.

3. Avoid the provocative causes of *Kshaya* (degeneration) and *Vata*, for example, excessive physical and mental work, vigorous exercise, tolerance of unsuppressible urges, intolerance of suppressible urges, and so on.
4. Panchakarma & Yoga are proven to be efficacious in many chronic health Problems of elderly people.^{ix}

Rasayana:

‘जस्करयत्तद्दृष्यंतद्रसायनं’ ॥ (cha.su. 1/5)

Charaka has briefly defined Rasayana as the measure by which one gets Rasa, Rakta, and etc Dhatu in its best condition. Sushruta has defined Rasayana as the therapy, which establishes the age (Vayasthapana), increases the life span (Ayuskar), intelligence (Medha) and strength (Bala) as well as it enables the person to rid of the diseases.

Mechanism of Action of Rasayana therapy

The word Rasayana is a combination of two separate words Rasa and ayana. The word Rasa in this context means the first liquid tissue which nourishes all the tissues in the body and Ayana is its circulation. This means that if rasa dhatu is produced in optimum quality and quantity, then naturally all the tissues in the body will be nourished properly.^x

Rasayana acts through various ways –It improves micro-circulation and been reported that the “Rasayanas” are rejuvenators, nutritional supplements and possess strong antioxidant activities. They also exert antagonistic action on oxidative stressors, giving rise to the for-

mation of different free radicals. They are used mainly to combat the effects of ageing, atherosclerosis, cancer, diabetes, rheumatoid arthritis, autoimmune disease and Parkinson's disease. The Rasayana herbs seem to operate through immunostimulant, immunoadjuvant, and immunosuppressant activities or by affecting the effector arm of the immune response. Mechanisms of immunomodulation activity occur mainly via phagocytosis stimulation, macro-phages activation, immunostimulatory effect on peritoneal macro-phages, lymphoid cells stimulation, cellular immune function enhancement and nonspecific cellular immune system effect, antigen-specific immunoglobulin production increase, increased nonspecific immunity mediators and natural killer cell numbers, reducing chemotherapy-induced leukopenia, and increasing circulating total white cell counts.^{xi}

Types of Rasayana:

a) Kutipravesika –(Indoor method),in this form of Rasayana therapy, the person is made to stay in a specially designed chamber for a certain period and is given Rasayana preparations (Non-ambulatory method/ In - door therapy). Before taking this form of rejuvenation therapy, the person has to undergo Panchakarma therapy.

ति॥” (Ch.su.4/50)

b) Vatatapika –Open air, this method is outdoor method.

c) Kamyasayana- (use oriented) also divided in three parts

1. Medhya Rasayan: Promote intelligence exm-. Brahmi, Mandukaparni, Jyotishmati, Jivanti etc.
2. Prana Rasayan: Promoteage-stabilization, longevity, vitality exm-. Amalaki, Haritaki, Guduchi, Shatavari
3. Srikamyasayana: Promote complexion – exm. Guduchi, Amalaki, Triphala, Ashvagandha etc

Rasayanas based on drug, diet and life style:

1. Aushdha Rasayana - Drug Based Rasayana.
2. Ahara Rasayana - Dietary Rasayana.
3. Achara Rasayana - Lifestyle Rasayana.

(d) Naimittikasayana- help to fight a specific disease..exm Prameha- Haridra, Shilajatu, Amalaki etc. Amavata- Bhallataka, Lashuna, Pippali etc.^{xii}

ntial uses of Pote Vayasthapana Dravya

Dalhana has explained the word “Vayasthapana” by giving its two meanings of “Vayasthapana”: (1) it enables the person to live a full life span of 100 years. (2) It makes the man to live young for a long period thus prevents the Jara.^{xiii} Acharya Charak mentioned Vayasthapana Mahakashaya dravyas in sutra sthana and said the drugs which prevents ageing process is known as Vayasthapana.

San-skrit Name	Latin Name	Rasa	Guna	Vi-rya	Vipaka	Dosha Action

Amrita	<i>Tinospora cordifolia</i> (Willd) Miers exHook.f.& Thoms	Tikta, Kashaya	Guru, Snigdha	Ushana	Madhura	Tridosha shamaka
Abhaya	<i>Terminalia chebula</i> Retz	(Pancharas) Kashaya	Laghu Ruksh	Ushana	Madhura	TridoshaShamakaS p(Vatashamaka)
Dhatri	<i>Embelica officinalis</i> Gaertn.	(Pancharas)Amla	Guru, Ruksh	Shita	Madhura	Tridosha Shama- kaSp.(Pittashamaka)
Yukta (Rasana)	<i>Pluchea lanceolata</i> C.B.Clarke	Tikta	Guru	Ushana	Katu	Vatashamaka
Shweta	<i>Clitoria ternatea</i> Linn.	Katu, Tikta	LaghuRuksh	Shita	Katu	Tridoshashamaka
Jiwanti	<i>Leptadenia reticulata</i> W.& A.	Madhura	LaghuSnigdha	Shita	Madhura	Vata-Pitta shamaka
Atirasa	<i>Asparagus recemosus</i> Willd	Madhura, Tikta	Guru, Snigdha	Shita	Madhura	Vata-Pitta shamaka
Mandookparni	<i>Centella asiatica</i> (Linn.)	Tikta, Kashaya	Laghu	Shita	Madhura	Kapha-Pitta shamaka
Sthira	<i>Desmodium gangeticum</i> DC.	Madhura, Tikta	Laghu	Ushana	Madhura	Tridoshashamaka
Punarnava	<i>Boerhavia diffusa</i> Linn.	Madhura, Tikta	Laghu Ruksh	Ushana	Madhura	Tridoshashamaka ^{xiv}

❖ **Amrita**- 1. Presence of the two gunas, of guru and snigdha are nutritive in action, being similar in quality to rasa dhatu. The heating Virya not only stimulates correct digestive fire treating mandaagni and vishamaagni but coupled with its tikta rasa it does not aggravate pitta whilst digesting ama – toxins and the post-digestive action of madhura indicate that the action of the herb is more anabolic than catabolic in nature and from an energetic perspective it counters the catabolic nature of ageing.

2. **According morden Research** :- *Tinospora cordifolia* Willd. Possesses immunomodulatory function.^{xv} It has adaptogen, Antipyretic, Anti inflammatory properties. The antioxidant activity of root extract is reported in alloxan diabetic rats (Prince P.S.M. et al; 1999).

❖ **Abhaya 1**.- It is recorded as being more vata pacifying and used in extensively in disorders of vata. This may be due to the heating virya and madhura vipaka, both of which counter vata. It is called Pathya that means removing any obstructive material and clarifying the path (srotasa).

It is revered for its rejuvenative action hence it is recommended for long term intake being combined with various agents during the different seasonal changes to promote and fortify its rejuvenative properties. It also known as 'Digestive Rasayana' by eliminating the waste products from the tissues/organs, particularly G.I.tract.^{xvi}

2. Terminalia chebula Retz. Possess, Antioxidant, antidiabetic, gentle purgative etc.^{xvii}

Dhatri-1. Amalaki is a rejuvenative to the pitta dosha, via its cooling quality and virya, and due to its madhura vipaka. It is also balancing to vata and kapha Its vata pacifying action due amla rasa and madhura vipaka is expressed in the anabolic action as it supports the building and strengthening of tissues countering degeneration associated with ageing. decrease the catabolic process and thus postpones ageing. Therefore, they are known as 'Vayasthapak Rasayana' (Adaptogenic tonic).

2. Embelica officinalis Gaertn. Possess Antiinflammatory, antioxidant properties.^{xviii} astringent. (Anti inflammatory effect of emblica officinale in rodent models of acute and chronic inflammation, IJRPBS, vol.3jun2012.)

Yukta-1. Rasna has vata pacifying action can be seen in the Guru guna and the heating virya. Vata is dissociative in nature and this is also a causative factor of jara. Charak said 'Rasnavataharanama' in Agrayaprakarana. So it is best drug, palliative for vata.

2 Pluchea lanceolata C.B.Clarke possesses Immunomodulator properties.(

DP.Bhagwat et al.;Immunosuppressive properties of pluchea lanceolata leaves; 2010,IJP)

❖ **Shweta-**According to modern research Clitoria turnatea Linn. has antibacterial properties.^{xix}

❖ **Jivanti-** 1. Having the main feature of having snigdha quality, madhura rasa, shita virya and madhura vipaka, indicates that this herb is building and strengthen in its actions supporting the kapha dosha in maintaining stability of the tissues. The nutritive effect supports the formation of rasa dhatu and ojas maintaining health and immunity, providing strength and energy and nourishes the remaining dhatu.

2. Leptadenia reticulata W.& A possesses Anti-fungal and antiseptic properties.^{xx}

❖ **Atirasa-1.** Shatavari madhura, tikta rasa and shita virya is pacifying to pitta and vata is pacified by the madhura rasa, guru and snigdha qualities and madhura vipaka. It is a nourishing herb to rasa dhatu observed in its galactagogue action as breast milk is an upadhatu of rasa hence exhibits the quality of rasa in its production. It is a building and nourishing herb countering the wasting of tissues.

2.Asparagus racemosus Willd: Antioxidant, hepatoprotective, antiulcer, antidepressant, hypoglycemic properties.^{xxi}

(M.Gautam,S.Mishra et al.2009,Immunomodulatory activity on systemic TH1/TH2 immunity implication for immunoadjuvants potential.J Elsevier.)

❖ **Mandookpasrni- 1.** Mandukaparni also known as Bramhi promotes circulation to the peripheral tissues as well as the brain therefore known as 'Medhya Rasayana' (Brain Tonic). Its action as a Vayasthapana relates directly to the actions on the mind as it promotes memory recall, concentration and reduces stress. Its actions is circulation and blood vessel health can also be associated with anti-aging properties.

2. *Centella asiatica* Linn. Oxidative stress, adaptogen, detoxifier nervine tonic properties.^{xxii}

Sthira-1. The energetic profile of the herb suggests that it is a building strengthening herb that nourishes the kapha aspect of the doshas whilst it's heating virya guards against the excess formation of kledakakapha in the stomach. The herb is a nervine and cardiotoxic effective in treating heart conditions caused by mental stress such as heart palpitation.

2. ***Desmodium gangeticum*** DC. nervine and cardiotoxic effective in treating heart conditions caused by mental stress.

Punarnava- 1. Punarnava'slaghu, ruksha qualities with ushana virya counters the qualities of ama –toxins. It is an effective rejuvenative of the urinary system which promotes the functions of the kidney and improves the regenerating capacity of the nephrons (a functional unit of the kidneys).

2. *Boerhavia diffusa* Linn used as immunomodulator, adaptogen, anti-stress, anti-inflammatory.^{xxiii}

All of these dravyas having capability to stable the process ageing and protect body from ageing disorders before time. If a per-

son takes these herbal drugs regularly, become youth for longer time, so these dravyas are known as 'Rasayana'. Others may call it as one which provides more than 100 years of healthy life. (Dalhana Su. Su.1). in present day 'Jara' is coming in early age in people. This is a result of Dhatukshaya. The Vayasthapana drugs are used in prevent these early age symptoms. Acharyacharaka considered 'Amlaki' as the best vayasthapana dravya.

DISCUSSION & CONCLUSION

Hence this present review on the *Vayasthapana mahakashaya dravya and its potential uses WSR to Geriatric care* provide information that all of these dravyas having capability to stable the process ageing before time and protect body and protect geriatric disorders in old age. In Ayurveda these drugs are grouped as *Vayasthapana Drugs*. The various types of Rasayana therapy are useful for specific as well as general use of it. Both dravyabhuta and adavyabhuta form of rasayanas are important for promote general well being and in specific conditions relating to geriatrics. If a person takes these herbal drugs regularly, become youth for longer time, so these dravyas are known as 'Rasayana'. Others may call it as one which provides more than 100 years of healthy life. (Dalhana Su. Su.1). Acharya charaka considered 'Amlaki' as the best vayasthapana dravya. Modern research also covered a lot of pharmacological screening of most of these rasayana and vayasthapana herbs. The possible mechanisms by which action of Rasayana can be interpreted with modern aspects are as follows Immunomodulatory action - Prevents recurrent in-

fection, expelling the damaged cells .Adapto-genic action - Maintains the balance between mind and body. Anti aging action- Encourages the growth of new cells.

REFERENCES:

ⁱ Charmi S. Mehta and Vimal R. Joshi 1 International Journal of Green and Herbal Chemistry (IJGHC); 2012, Vol.1, No.1, 61-74. Anti ageing drugs in Ayurveda .

ⁱⁱ Mishra et al. World Journal of Pharmacy and Pharmaceutical Sciences (wjpps) Vol 4, Issue 06, 2015. 382.

ⁱⁱⁱ [HTTP://WWW.researchgate.net/publication/215564627Ayurveda and Siddha for Geriatric care- An](http://WWW.researchgate.net/publication/215564627Ayurveda_and_Siddha_for_Geriatric_care-An_insight_on_strengths_of_Ayurveda_and_Siddha_for_Geriatric_Care)

insight on strengths of Ayurveda and Siddha for Geriatric Care

^{iv} Racquel Daley-Placide, MD Clinical Assistant Professor Division of Geriatrics The University of North Carolina @ Chapel Hill

^v A A Mangoni and S H D Jackson, Br J Clin Pharmacol. 2004 Jan; 57(1): 6–14, Age-related changes in pharmacokinetics and pharmacodynamics.

^{vi} R. D. Lele, “Rejuvenation of the elderly,” in Ayurveda and Modern Medicine, pp. 405–415, Bhartiya Vidya Bhavan, Bombay, India, 1986.

^{vii} Ayurvedatvasasandipikahindi Commentary by Kaviraj Ambika Dutt Shastri, Sushruta Samhita, Purvardha Sutra sthan ch.24, Verse 8, page 130, reprint year 2011; Chaukhamba Sanskrit Sansthan, Varanasi.

^{viii} Ayurvedatvasasandipikahindi Commentary by Kaviraj Ambika Dutt Shastri, Su-

shruta Samhita, Purvardha Sutra sthan ch.24, Verse 8, page 130, reprint year 2011; Chaukhamba Sanskrit Sansthan, Varanasi.

^{ix} Ayurvedatvasasandipika hindi Commentary by Kaviraj Ambika Dutt Shastri, Sushruta Samhita, Purvardha Sutra sthan ch.1, Verse 15, page 6, reprint year 2011; Chaukhamba Sanskrit Sansthan, Varanasi.

^x Mishra et al. World Journal of Pharmacy and Pharmaceutical Sciences (wjpps) Vol 4, Issue 06, 2015. 382.

^{xi} Charmi S. Mehta and Vimal R. Joshi 1 International Journal of Green and Herbal Chemistry (IJGHC); 2012, Vol.1, No.1, 61-74. Anti ageing drugs in Ayurveda .

^{xii} Ibidem ref(10), Charaka. Charaka Samhita, Chikitsa sthana, volume 3, Abhayaamalakiyarasayanapada 1/1/6-7, p-4 -12

^{xiii} Dravyaguna vijnana vol 2 by prof. P.V. Sharma reprint year 2006; Chaukhamba Bharti Academy

^{xiv} Dravyaguna vijnana vol 2 by prof. P.V. Sharma reprint year 2006; Chaukhamba Bharti Academy

^{xv} H. Purandare, A. Supe-Indian journal of medical science ,2007 vol-61, issue-6, page 347-355

^{xvi} Dravyaguna vijnana vol 2 by prof. P.V. Sharma reprint year 2006; Chaukhamba Bharti Academy

^{xvii} Surya prakash Dv sree stya n. International journal of research in pharmaceutical and biomedical science vol.3 (2) Apr-jun 2012 page no(.679-683).

^{xviii} M.Golecha, v. sarangle s.ojha International journal of inflammation vol.2014(2014) page 6

^{xix} S.p.anand,A.doss,International journals of applied biology and pharmaceutical technology.vol.2 year 2011 july-sep.

^{xx} P.suresh kumar Journal of basic applied biology.vol2(1),2008 page 9-13

^{xxi} J.p. kamat,K.k.bolloor Journal of ethnopharmacology vol.71,august 2000,Page 425-435

^{xxii} H nur hidayah,T.i rasyidah Journal of medical and bio-engineering vol.4 no.4 august 2015

^{xxiii} Krishna murti, Mayank A.panchal International journal of pharmaceutical science review and research vol.5, issue2, nov.-dec.2010.

CORRESPONDING AUTHOR:

Dr. Ritu Rajoriya, P.G. Scholar,
Dept. of P.G. Studies in DravyaGuna,
National Institute of Ayurveda,
Amer road Joravar Singh gate,
Jaipur, Rajasthan, India, 302002

Source of support: Nil
Conflict of interest: None Declared